Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the matter of	)	
	)	
Tribal Mobility Fund Phase I Auction	)	AU Docket 13-53
	)	
	)	

COMMENTS OF SMITH BAGLEY, INC.

Smith Bagley, Inc. ("SBI") by counsel and pursuant to the Commission's Public Notice, DA 13-323 (March 29, 2013) ("Public Notice"), hereby files comments in the above-captioned proceeding. SBI thanks the Commission for providing an opportunity to comment on upcoming procedures for Auction 902.

I. Introduction.

For over twenty years, SBI has provided commercial mobile wireless service to five different Native American lands, including Navajo, Hopi, White Mountain Apache, Zuni and Ramah Navajo. SBI is an eligible telecommunications carrier ("ETC") in Arizona, New Mexico and Utah, authorized to use federal high-cost support to construct facilities in these states. The company serves over 120,000 people and it provides Lifeline discounts to over 60,000 tribal residents. Over the years, SBI has placed into the record on several occasions the difficulties faced by tribal residents in these areas.[1] Tribal lands represent a special case, warranting policy

[1] *See, e.g.,* SBI Petition for Waiver, WC Dockets No. 11-42 et al. (filed June 26, 2012); SBI ex parte notice, WC Dockets No. 11-42 and 03-109 (filed Dec. 15, 2011); SBI ex parte notice, WC Docket No. 10-90 et al. (filed Oct. 19, 2011); SBI ex parte notice, WC Docket No. 10-90 et al. (filed Sept. 13, 2011); SBI Reply Comments, WC Docket No. 10-90 et al. (filed Sept. 6, 2011); SBI ex parte notice, WC Docket Nos. 08-71 and 05-337 (filed Oct. 29, 2010); SBI Reply Comments, WC Docket No. 05-337 et al. (filed Aug. 11, 2010).

actions designed to bring infrastructure up to the standard that the rest of the nation takes for granted today.

SBI commends the FCC for setting aside funds for these areas and specifically for defining the tribal lands in New Mexico broadly, to include the Navajo Eastern Agency. The Eastern Agency presents extraordinary challenges for carriers to serve, including low population density, poor demographics, and sub-standard infrastructure. Investments in advanced telecommunications services lag the nation as a whole and support is needed to bring much needed mobile broadband to the area.

II. SBI Suggests the Inclusion of Census Blocks in Auction 902 Which Meet the Criteria for Eligibility Established by the Commission.

A. Summary of Test Results.

The Public Notice includes a list of census blocks that are potentially eligible for Auction 902 support as of March 22, 2013. Commenters who believe that certain census blocks should be included in the list were invited to provide a list, with supporting evidence.[2] SBI has reviewed the Bureau's census block list and related maps of potentially eligible census blocks located in the northwestern region of the State of New Mexico, and has determined that numerous census blocks have been excluded from the list, but in fact should be included as potentially eligible census blocks.

At a high level, the map of potentially eligible areas paints a picture of Navajo that is inconsistent with facts on the ground. In northwestern New Mexico, the map shows almost all of

[2] Public Notice, at para. 21.

the area as being served by 3G or better service, with a few small eligible areas sprinkled throughout. [3]

In developing its list of potentially eligible census blocks, the Commission has relied upon information provided by carriers to Mosaik Solutions. That data is not nearly granular enough to accurately depict the level of 3G service available in the region. While it is true that some carriers have constructed some 3G service in the region, the 3G service level available to citizens in this area is nowhere near what is needed for a user to actually have a 3G experience in a mobile environment.

SBI has conducted drive tests in a substantial part of the Eastern Agency. A map showing the results is attached as Exhibit A, and a list of census blocks without reliable 3G or 4G service is attached as Exhibit B. Declarations of Guy Turley, SBI's Director of Engineering and Technical Operations, and SBI's consulting engineer, Ali Kuzehkanani, are attached hereto as Exhibits C and D, respectively. As described in more detail in Exhibits C and D, most of the area surveyed does not have 3G or better coverage.

SBI used industry standard test equipment and testing practices that enabled technicians to continually measure downlink and uplink speeds in a mobile environment similar to what an ordinary user would experience. Equipment was used inside of a vehicle in an unobstructed location and measurements were recorded as the test vehicle moved at or below posted speed limits. Tests were not made in a fixed environment.

The attached map depicts coverage from all carriers purporting to provide 3G or better coverage in the region. A test point in the road is shown to have coverage when test equipment shows ***either*** the uplink speed (200 kbps) and downlink speed (50 kbps) exceed the required threshold.

[3] *See*, http://www.fcc.gov/maps/tribal-mobility-fund-phase-i-potentially-eligible-areas

There are a number of reasons why an area could be shown to have coverage in a Mosaik database, but still be properly included in Auction 902. For example, advertised coverage may be developed through a predictive model that is subject to a number of user inputs that may not be consistent with equipment specifications actually deployed in the field. Downlink coverage may be modeled to occur over a wide area; however, 3G uplink speeds may be insufficient. That is, the cell tower has enough power to transmit data to the handset, but the handset radio is not strong enough to reach the tower, and data cannot be uplinked until the handset moves closer to a tower. In this scenario, 3G service is not available.

The only way to demonstrate what is actually going on in the field is through a drive test. And even then, mapping drive test results is an imperfect science, and coverage can be overstated. SBI's drive tests showed that some coverage exists in the region, but it is not sufficient to provide consistent 3G service meeting the FCC's Mobility Fund standards. In the attached map, road areas depicted in red cannot achieve consistent 3G connectivity in a mobile environment. Despite the fact that there could be small areas where a device connects, a user cannot travel down any of the roads depicted in red and obtain a consistent 3G connection. In many areas there was no service. In others, service was consistently below 3G. In other areas, service was so intermittent that test equipment could not generate readings sufficient to produce a green dot on the map.

In sum, if one were traveling down these roads, 3G service is either completely unavailable or the user can only obtain an intermittent connection that does not allow a user to conduct a data session (2G, 3G or 4G) in a mobile environment.

Some small areas on the attached map are shown in green. This coloring does not necessarily signify 3G coverage; as noted on the legend, this signifies that service was

registered at 3G speeds for ***either*** uplink ***or*** downlink. Thus, in some areas shown in green, service may be available at 3G speeds for uplink but not downlink, or vice versa. In these areas, 3G service should be considered unavailable.

Finally, even assuming coverage is available at 3G speeds for both uplink and downlink in all areas depicted in green, such coverage is widely dispersed and produces no meaningful 3G connectivity over large areas. As shown on the map, the green areas are closely interspersed with red areas, which suggests strongly that 3G coverage over those stretches, if any, will be subject to persistent interruption.

Overall, the areas where neither the uplink nor downlink threshold is met (i.e., the red areas) far exceed the areas where the threshold is met in at least one direction (i.e., the green areas). As shown on the legend, the drive tests resulted in 74,470 instances where service met neither the uplink nor the downlink speed, compared to only 13,765 instances where service met the threshold in at least one direction.

Accordingly, SBI's depiction gives the current coverage every available benefit of the doubt. That is, it could be inaccurate because there are too many false positives shown on the map. It cannot be inaccurate because there are too many false ***negatives***. Consistent with SBI's position that tribal lands represent a special case that requires the FCC to err on the side of investment, these results should lead to the conclusion that the entire area should be opened up for mobile broadband investment.

Based on the drive test results, SBI has developed a list of census blocks in the area that should be included in Auction 902.

B. On Tribal Lands, Areas Should be Excluded Judiciously.

As SBI has said many times, tribal lands, especially those that are behind the rest of the nation in infrastructure deployment, errors should be made on the side of encouraging additional deployment. Here, there are extraordinary circumstances that warrant opening these areas up for Auction 902 bidding.

When looking at data available at the Mosaik site, as well as those on carrier sites, it is apparent that investments have been made by companies that do not have any universal service obligations. To the extent that the Commission blocks these areas out of Auction 902, no further investment of federal universal service support will occur there. Only investments that return a profit on their own will be made. As shown by SBI's drive tests, these areas do not have high quality 3G service today and they may not have it well into the future. Moreover, without support flowing to any recipient, there is no way for the Commission to ensure that high-quality 4G service ***ever*** comes to this region.

To use SBI as an example, the company has constructed a substantial network in northwestern New Mexico, providing excellent voice service in many areas, along with 2G service. It is prepared to construct 3G and 4G networks in the near future; however, in the absence of support its ability to do so will be constrained. At best, SBI will build a network that is competitive, containing many of the same limitations shown in its recent drive tests.

Such a network is not what the FCC should be looking for. These tribal areas deserve to have high-quality coverage that meets the drive testing standards set out in the *CAF Order*[4] so that tribal citizens can have consistent connectivity at acceptable throughput speeds. As it stands

[4] *See, Connect America Fund*, WC Docket No. 10-90, *A National Broadband Plan for Our Future*, GN Docket No. 09-51, *Establishing Just and Reasonable Rates for Local Exchange Carriers*, WC Docket No. 07-135, *High-Cost Universal Service Support*, WC Docket No. 05-337, *Developing an Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, *Lifeline and Link-Up*, WC Docket No. 03-109, *Universal Service Reform – Mobility Fund*, WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17791-92 (¶¶ 360-64) (2011) ("*CAF Order*" and "*CAF FNPRM*"), *pets. for review pending sub nom. In re: FCC 11-161*, No. 11-9900 (10th Cir. filed Dec. 18, 2011) (and consolidated cases).

now, no business looking to locate in the area tested by SBI would conclude that it has access to a dependable 3G or 4G mobile network that its employees can use, similar to what is available in other parts of Utah, Colorado, Arizona or New Mexico. The lack of infrastructure, that is, the lack of tools that work as they should, represent enormous impediments to economic development on tribal lands.

By opening up these areas to bidding, the Commission increases the chance that SBI and other mobile carriers will bid for support. To the extent that infrastructure already exists in the area, bid amounts will be reduced and the area will be more likely to win support at an efficient level. In areas where service is poor, and additional cell towers need to be constructed, the area may not win support, but the Commission will be on notice that bringing the area up to an acceptable 3G/4G service is costly – and such investments are not likely to be made in these areas without support.

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III. Conclusion.

SBI respectfully requests the Commission to open up the attached census blocks for bidding in Auction 902. There is no reliable 3G or 4G service available within the areas depicted on the attached map as memorialized in the list of census blocks.

Any carrier believing that reliable 3G or better service exists in these areas should be required to submit drive test results that enable the Commission to conclude based on substantial evidence that high-quality 3G/4G service is already available in these areas.

Respectfully submitted,

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